

Bird observations along the Noumbi River, Conkouati-Douli National Park, Congo-Brazzaville

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Observations ornithologiques au bord de la rivière Noumbi, Parc National de Conkouati-Douli, Congo-Brazzaville. Un bref inventaire ornithologique de huit jours a été effectué en juillet 2013 le long de la rivière Noumbi, dans le Parc National de Conkouati-Douli, Zone Importante pour la Conservation des Oiseaux au sud-ouest du Congo-Brazzaville. Des 78 espèces enregistrées, huit n'avaient pas encore été observées dans le parc, dont une classée comme Vulnérable (le Perroquet Jaco *Psittacus erithacus*). Avec ces additions, la liste pour le parc s'élève à 298 espèces. Ces résultats soulignent la nécessité de poursuivre les prospections sur le terrain afin d'améliorer les connaissances de l'avifaune de ce hotspot de la biodiversité.

Summary. A brief bird survey of eight days was carried out in July 2013 along the Noumbi River, within Conkouati-Douli National Park, an Important Bird Area in south-west Congo-Brazzaville. In total, 78 species were recorded, eight of which had not previously been observed in the park; one of these is classified as Vulnerable (Grey Parrot *Psittacus erithacus*). With these additions, the bird list for Conkouati-Douli National Park currently numbers 298 species. These results highlight the need for further field work to improve knowledge of the avifauna of this biodiversity hotspot.

The avifauna of the Republic of Congo (Congo-Brazzaville) remains incompletely known, partly due to the lack of resident ornithologists (Dowsett-Lemaire 2001). Moreover, political instability and violence in the 1990s have not encouraged birders to visit. At present, the country checklist includes 664 species with confirmed records (Dowsett *et al.* 2016).

Incomplete knowledge of the avifauna is particularly true for Conkouati-Douli National Park (CDNP), in the south-west (Fig. 1a). CDNP was gazetted as a faunal reserve in 1980 and classified as a national park in 1999, by Executive Order No. 99-136. The park is managed by the Ministère de l'Économie forestière et du Développement durable, in partnership with the Wildlife Conservation Society. Very few bird surveys have been undertaken in the area: the only efforts known to us are those of Heeketsweiler & Mokoko Ikonga (1991) and Doumenge (1992), who reported on species recorded opportunistically in the western and eastern parts of the park, respectively. There are also unpublished reports of a brief survey in October–November 1996 (Cruickshank *c.*1997) and on occasional waterbird censuses at the lagoons (Mokoko Ikonga 2007). Additionally, Dowsett-Lemaire & Dowsett (1989, 1991) carried out bird surveys in the nearby Kouilou River basin. Although monitoring programmes are operated by governmental bodies and NGOs for several natural resources (fisheries, oil extraction

and taxonomic groups (sea turtles, cetaceans, large terrestrial mammals) at CDNP (Devers & Vandeweghe 2006), the avifauna has received relatively little attention to date and clearly merits further field work (Rainey *et al.* 2009).

F. Dowsett-Lemaire (*in litt.* 2016) compiled a tentative bird list for CDNP based on the surveys presented by Heeketsweiler & Mokoko Ikonga (1991), Doumenge (1992) and especially Cruickshank (*c.*1997), of which only the list of species restricted to the Guinea-Congo forest biome has been published (Dowsett-Lemaire 2001). Dowsett-Lemaire (2001) commented that the number of confirmed species (288) was undoubtedly below the potential (probably >400)—the better surveyed Lower Kouilou basin, which has several habitat types in common with, and only half the surface area of CDNP, harbours 378 confirmed species.

CDNP has been recognised as an Important Bird Area, based on the presence of a breeding population of Rosy Bee-eaters *Merops malimbicus* and of 117 of the 200 species restricted to the Guinea-Congo Forests biome recorded in Congo-Brazzaville (Dowsett-Lemaire 2001). Additionally, CDNP lies within the Secondary Endemic Bird Area 'Gabon–Cabinda Coast', which includes the distribution of Loango Weaver *Ploceus subpersonatus*, a restricted-range species (Bulens & Dowsett 2001). Finally, it was proposed as a Ramsar Site of International Importance (Heath



Figure 1. Location of Conkouati-Douli National Park (left) and of the study area along the Noumbi River within the park (below), Congo-Brazzaville.

Localisation du Parc National de Conkouati-Douli (ci-contre) et de la zone d'étude le long de la rivière Noumbi dans le parc (ci-dessous), Congo-Brazzaville.



2002) on the basis of a breeding population of African River Martin *Pseudochelidon eurystomina* (Maisels & Cruickshank 2000), a Data Deficient species, despite the fact that on the central African

coast this martin is not water-dependent but breeds in dry sandy savannah.

This paper presents the results of a brief bird survey along the Noumbi River, in the eastern section of CDNP. At this location, a

project to reintroduce previously captive Mandrills *Mandrillus sphinx* into the wild has been undertaken since 2012 by the Jane Goodall Institute. The bird survey was part of wider fauna and flora inventories, aimed to gain knowledge of the biodiversity and environmental features of the forest area where Mandrills are to be released.

Study area

CDNP is situated within Kouilou administrative region, the south-westernmost part of Congo-Brazzaville (Fig. 1). The park lies between 03°23'–04°18'S and 11°06'–11°43'E. It is limited to the north and west by the international border with Gabon, to the east by the lower Kouilou basin, and to the south by the Atlantic Ocean (Fig. 1). It covers 505,000 ha, 75% of which is terrestrial, from sea level to c.600 m on the Mayombe massif, in the north-east. Non-marine habitats include coastal and tall-grass savannahs, lagoons and rivers, and forests. CDNP's tropical forests, which form part of the Lower Guinean block, account for 73% of the land surface and comprise mangroves, littoral and sublittoral forests, and swamp and semi-evergreen rainforests. Together with the neighbouring Gamba-Mayumba ecoregion in coastal Gabon, CDNP is regarded as a critical hotspot for biodiversity in West-Central Africa, based on the richness of its flora, the large mammal populations (including African Manatee *Trichechus senegalensis*, Forest Elephant *Loxodonta africana cyclotis*, Central Chimpanzee *Pan t. troglodytes*, Western Lowland Gorilla *Gorilla g. gorilla* and other primates and ungulates) and sea turtle breeding sites (Devers & Vandeweghe 2006).

Human population density in and around CDNP is low, but pressure on natural resources disproportionately exceeds local demands. Several logging concessions have operated in recent decades, even following the park's creation. Apart from changing the structure and composition of the forest, mining and logging activities have facilitated human exploitation of other resources. Hunting and bushmeat trade are major conservation concerns and are thought to be reducing populations of medium-sized and large mammals at an unsustainable rate (Weiland 2008), provisioning the metropolitan area of Pointe-Noire (c.1,000,000 inhabitants). In general, birds are not the primary target of such hunting activities, at least not in forest tracts more

distant from villages (Hecketsweiler & Mokoko Ikonga 1991).

The Noumbi is one of the largest rivers in southern Congo-Brazzaville, after the Koilou. It meanders through the eastern sector of CDNP, successively traversing Mayombe forest, the forest–savannah mosaic and the coastal forests and shrublands near the river mouth. Our field work was carried out along a 6 km-long stretch in the middle section of the river (04°01'S 11°37'E). Here the riverbed is 15–20 m wide, lined by a narrow strip of secondary gallery forest (Fig. 2), temporarily flooded and dominated by *Raphia* spp., *Berlinia* spp., *Alstonia congensis*, *Uapaca heudelotii*, *Coelocaryon botryoides*, *Guibourtia* spp. and *Sclerosperma mannii*. This gallery is embedded within a 2–4 km-wide dense transitional rainforest between the pure Mayombe and sublittoral forests, giving way to patches of savanna (Hecketsweiler & Mokoko Ikonga 1991). The current zoning of the park includes this area as an 'ecodevelopment' sector, where fishing and gathering of non-timber forest products are permitted (Weiland 2008). The closest permanent human settlement is 20 km away, but there is regular activity by fishermen in the area.

Methods

Bird species were recorded on a fixed itinerary of 4.6 km along the Noumbi River. As there are no terrestrial routes in this part of CDNP, we used a small rowing boat (pirogue). The field team consisted of three people, two scanning the riverside and canopy, and noting observed species, and the third directing navigation. The boat was paddled at a very low speed (2–3 km/hour), and frequent stops were made to identify passing flocks, bird parties or particular individuals under difficult light conditions (birds high up in the canopy or in the shade). Each survey began in the morning (at c.09.00 hrs) and lasted until the afternoon (14.00–15.00 hrs). Each day, we made short walks from the riverbank into the adjacent forest, using paths made by fishermen and small clearances created by elephants (Fig. 3). The same itinerary was followed every day, upstream first and downstream subsequently, and was repeated daily between 17 and 24 July 2013. We did not count the number of birds, but a relative index of species abundance was inferred based on the daily frequency of occurrence.



Figure 2. Dense gallery forest along the Noubi River, Conkouati-Douli National Park, Congo-Brazzaville, July 2013 (Nerea Ruiz de Azua)

Forêt galerie dense le long de la rivière Noubi, Parc National de Conkouati-Douli, Congo-Brazzaville, juillet 2013 (Nerea Ruiz de Azua)

Figure 3. Small clearings created or maintained by elephants provide habitat patches for a number of bird species; Noubi River, Conkouati-Douli National Park, Congo-Brazzaville, July 2013 (Nerea Ruiz de Azua)

Les petites clairières, créées ou maintenues par les éléphants, offrent un habitat favorable à de nombreuses espèces d'oiseaux ; rivière Noubi, Parc National de Conkouati-Douli, Congo-Brazzaville, juillet 2013 (Nerea Ruiz de Azua)

Figure 4. Adult male Black-headed Bee-eater *Merops breweri*, Noubi River, Conkouati-Douli National Park, Congo-Brazzaville, July 2013 (Nerea Ruiz de Azua)

Guêpier à tête noire *Merops breweri*, mâle adulte, rivière Noubi, Parc National de Conkouati-Douli, Congo-Brazzaville, juillet 2013 (Nerea Ruiz de Azua)

Figure 5. Adult Banded Prinia *Prinia bairdii*, Noubi River, Conkouati-Douli National Park, Congo-Brazzaville, July 2013 (Nerea Ruiz de Azua)

Prinia rayée *Prinia bairdii*, adulte, rivière Noubi, Parc National de Conkouati-Douli, Congo-Brazzaville, juillet 2013 (Nerea Ruiz de Azua)

Birds were mainly identified visually, using Borrow & Demey (2001, 2010). Occasionally, photographs of individual birds were taken, the identification subsequently being confirmed with the aid of online image databases (<http://www.africanbirdclub.org/afbid/>; <http://ibc.lynxeds.com/>). We did not rely on vocalisations alone for identification.

Results and Discussion

We recorded 78 species, of which eight are additions to the avifauna of CDNP and 50 (64%) are restricted to the Guinea-Congo Forests biome. All of these are shown in Appendix 1, with the complete (previously unpublished) checklist for CDNP prepared by F. Dowsett-Lemaire (*in litt.* 2016) and two recent updates (see below).

Grey Parrot *Psittacus erithacus* (classified as Vulnerable) was fairly abundant in gallery forest, where a communal roost of *c.*100 individuals was located. During the daytime the flocks dispersed into the forest, where the species' presence was much less apparent. The population of this parrot in Congo-Brazzaville might be stable, although local declines attributed to trapping activities have been reported here (Martin *et al.* 2014) and in neighbouring countries (Hart *et al.* 2016). Hartlaub's Duck *Pteronetta hartlaubii* was irregularly encountered; this species, which was previously considered Near Threatened (Stattersfield & Capper 2000), has been downgraded to Least Concern due to its large range and estimated global population size above the criterion threshold, although major declines have been reported in West Africa (BirdLife International 2016). Rosy Bee-eater *Merops malimbicus* was observed once: a group of ten in flight over the river on 17 July. Maisels & Cruickshank (2000) discovered a colony of 1,000–1,500 birds in the coastal sector of CDNP. Although the species is not classified as globally threatened at present, the distribution of its breeding colonies and its conservation status are poorly known (Fry & Kirwan 2016) and better knowledge may lead to its reclassification. Several Banded Prinias *Prinia bairdii* (Fig. 5) were observed at small clearings created by elephants in the forest–river contact strip, on 23–24 July. The species was apparently not known previously from CDNP and distribution maps show a small gap in

south-west Congo-Brazzaville and coastal south-east Gabon (e.g. Borrow & Demey 2014).

Dowsett-Lemaire (2001) reviewed the available data and compiled a list of 288 species, based almost entirely on the survey by Cruickshank (*c.*1997), who identified *c.*265 species. Additional species were taken from Hecketsweiler & Mokoko Ikonga (1991) and Doumenge (1992), who produced much shorter lists with a higher proportion of errors (Dowsett-Lemaire *in litt.* 2016). Since then, two additions have been published (Marsh Sandpiper *Tringa stagnatilis*: Rainey *et al.* 2009; Great White Pelican *Pelecanus onocrotalus*: N. Honig in *Bull. ABC* 20: 97). The results of our brief and local survey suggest that the CDNP bird list is still far from complete, and that the park deserves more extensive field efforts.

Acknowledgements

Françoise Dowsett-Lemaire kindly made her unpublished checklist for CDNP available to us. Comments by Ron Demey, Françoise Dowsett-Lemaire, Bruno Portier and Hugo Rainey greatly improved the draft. Invaluable help was received from the staff of the Jane Goodall Institute in Congo-Brazzaville, with special thanks to Debby Cox, Noel Kiyindou, Fernando Turmo and Miles Woodruff. Laura Mari and Eduard Sanz were excellent teammates during the field work.

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Received 4 July 2015; revision accepted 23 November 2016.

Appendix 1. Bird species recorded in Conkouati-Douli National Park, Congo-Brazzaville.

(Dowsett-Lemaire 2001 and *in litt.* 2016, with a few additions from Rainey *et al.* 2009, Honig *in Bull. ABC* 20: 97 and this study).

Species recorded along the Noumbi River in July 2013 have a coded encounter rate; additions to the list are denoted *.

Sequence and taxonomy generally follow Dowsett *et al.* (2016), with a few amendments (*cf.* Borrow & Demey 2014).

Status in Congo-Brazzaville (Dowsett *et al.* 2016): R = resident; B = breeding confirmed; M = intra-African migrant; P = breeds in Palearctic; W = winters (non-breeding season); V = vagrant.

IUCN threat status (BirdLife International 2016): VU = Vulnerable; NT = Near Threatened; DD = Data Deficient.

Biome: GC = restricted to the Guinea-Congo Forests biome (Dowsett-Lemaire 2001).

Encounter rate: c = common or fairly common (encountered several times per day or on most days); u = uncommon (irregularly encountered); r = rare (rarely encountered).

Annexe 1. Espèces d'oiseaux observées au Parc National de Conkouati-Douli, Congo-Brazzaville.

(Dowsett-Lemaire 2001 et *in litt.* 2016, avec quelques ajouts de Rainey *et al.* 2009, Honig *in Bull. ABC* 20: 97 et cette étude).

Les espèces observées sur la rivière Noubi en juillet 2013 ont un taux de rencontre codé ; les additions à la liste sont marquées d'un *.

L'ordre et la taxonomie suivent en général Dowsett *et al.* (2016), avec quelques changements (*cf.* Borrow & Demey 2014).

Statut au Congo-Brazzaville (Dowsett *et al.* 2016) : R = résident ; B = reproduction confirmée ; M = migrateur intra-africain ; P = espèce nichant dans la région paléarctique ; W = hivernant (en dehors de la saison de reproduction) ; V = espèce occasionnelle.

Statut de conservation IUCN (BirdLife International 2016) : VU = Vulnérable ; NT = Quasi menacé ; DD = Données insuffisantes.

Biome : GC = confiné au biome des forêts guinéo-congolaises (Dowsett-Lemaire 2001).

Taux de rencontre : c = commune ou assez commune (notée quotidiennement ou presque) ; u = peu fréquent (irrégulièrement notée) ; r = rare (rarement notée).

		Status in Congo-Brazzaville	IUCN	Biome	Encounter rate			Status in Congo-Brazzaville	IUCN	Biome	Encounter rate
PODICIPEDIDAE						Palm-nut Vulture	<i>Gypohierax angolensis</i>	RB			c
Little Grebe	<i>Tachybaptus ruficollis</i>	RB			u	Black-breasted Snake Eagle	<i>Circaetus pectoralis</i>	R			
PELECANIDAE						Congo Serpent Eagle	<i>Dryotriorchis spectabilis</i>	RB		GC	
Great White Pelican	<i>Pelecanus onocrotalus</i>	M				African Harrier Hawk	<i>Polyboroides typus</i>	R			c
PHALACROCORACIDAE						African Goshawk	<i>Accipiter tachiro toussenelli</i>	R			
Long-tailed Cormorant	<i>Microcarbo africanus</i>	R				Red-thighed Sparrowhawk	<i>Accipiter erythropus</i>	R		GC	
ANHINGIDAE						Black Sparrowhawk	<i>Accipiter melanoleucus</i>	R			u
African Darter	<i>Anhinga rufa</i>	R				Long-tailed Hawk	<i>Urotriorchis macrourus</i>	RB			
ARDEIDAE						Red-necked Buzzard	<i>Buteo auguralis</i>	RB			
White-crested Tiger Heron	<i>Tigriomis leucolopha</i>	RB		GC		Cassin's Hawk Eagle	<i>Aquila africana</i>	R			
Squacco Heron	<i>Ardeola ralloides</i>	R/PW				Crowned Eagle	<i>Stephanoaetus coronatus</i>	RB		NT	
Cattle Egret	<i>Bubulcus ibis</i>	RB				NUMIDIDAE					
Little Egret	<i>Egretta garzetta</i>	R/PW				Black Guinea fowl	<i>Agelastes niger</i>	R		GC	
Grey Heron	<i>Ardea cinerea</i>	R				Helmeted Guinea fowl	<i>Numida meleagris</i>	R			
Black-headed Heron	<i>Ardea melanocephala</i>	RB				PHASIANIDAE					
Goliath Heron	<i>Ardea goliath</i>	R				Latham's Forest Francolin	<i>Peliperdix lathamii</i>	RB		GC	
Purple Heron	<i>Ardea purpurea</i>	R/P				Scaly Francolin	<i>Pternistis squamatus</i>	R			
Great Egret	<i>Ardea alba</i>	R/PW				TURNICIDAE					
SCOPIIDAE						Common Buttonquail	<i>Turnix sylvaticus</i>	R			
Hamerkop	<i>Scopus umbretta</i>	RB			u	Black-rumped Buttonquail	<i>Turnix hottentottus</i>	M			
CICONIIDAE						RALLIDAE					
African Openbill	<i>Anastomus lamelligerus</i>	M				*Nkulengu Rail	<i>Himantornis haematopus</i>	R		GC	r
Woolly-necked Stork	<i>Ciconia episcopus</i>	R				Black Crake	<i>Amaurornis flavirostra</i>	RB			u
THRESKIORNITHIDAE						SAROTHRURIDAE					
Hadada Ibis	<i>Bostrychia hagedash</i>	R				White-spotted Flufftail	<i>Sarothrura pulchra</i>	R		GC	
ANATIDAE						HELIORNITHIDAE					
Hartlaub's Duck	<i>Pteronetta hartlaubii</i>	R		GC	u	African Finfoot	<i>Podica senegalensis</i>	RB			u
African Pygmy Goose	<i>Nettapus auritus</i>	R				OTIDIDAE					
PANDIONIDAE						Black-bellied Bustard	<i>Lissotis melanogaster</i>	RB			
Osprey	<i>Pandion haliaetus</i>	P				JACANIDAE					
ACCIPITRIDAE						African Jacana	<i>Actophilornis africanus</i>	RB			
Bat Hawk	<i>Macheiramphus alcinus</i>	R				BURHINIDAE					
Black-shouldered Kite	<i>Elanus caeruleus</i>	R				Water Thick-knee	<i>Burhinus vermiculatus</i>	R			
Yellow-billed Kite	<i>Milvus migrans parasitus</i>	MB				GLAREOLIDAE					
African Fish Eagle	<i>Haliaeetus vocifer</i>	RB			r	Temminck's Courser	<i>Cursorius temminckii</i>	R			

		Status in Congo- Brazzaville	IUCN	Biome	Encounter rate			Status in Congo- Brazzaville	IUCN	Biome	Encounter rate
CHARADRIIDAE						Gabon Coucal		<i>Centropus anelli</i>	R	GC	u
Grey Plover	<i>Pluvialis squatarola</i>	P				Black Coucal		<i>Centropus grillii</i>	RB		
White-headed Lapwing	<i>Vanellus albiceps</i>	RB				Senegal Coucal		<i>Centropus senegalensis</i>	RB		
Senegal Lapwing	<i>Vanellus lugubris</i>	MB			u	STRIGIDAE					
SCOLOPACIDAE						Spotted Eagle Owl		<i>Bubo africanus</i>	R		
Sanderling	<i>Calidris alba</i>	P				Vermiculated Fishing Owl		<i>Scotopelia bouvieri</i>	RB	GC	
Bar-tailed Godwit	<i>Limosa lapponica</i>	P				African Wood Owl		<i>Strix woodfordii</i>	R		
Whimbrel	<i>Numenius phaeopus</i>	P				Sjöstedt's Owlet		<i>Glaucidium sjöstedti</i>	R	GC	
Eurasian Curlew	<i>Numenius arquata</i>	P	NT			Marsh Owl		<i>Asio capensis</i>	M		
Common Greenshank	<i>Tringa nebularia</i>	P				CAPRIMULGIDAE					
Marsh Sandpiper	<i>Tringa stagnatilis</i>	P				Bates's Nightjar		<i>Caprimulgus batesi</i>	RB	GC	
Common Sandpiper	<i>Actitis hypoleucos</i>	PW				Swamp Nightjar		<i>Caprimulgus natalensis</i>	RB		
Ruddy Turnstone	<i>Arenaria interpres</i>	P				Square-tailed Nightjar		<i>Caprimulgus fossii</i>	RB		
LARIDAE						Fiery-necked Nightjar		<i>Caprimulgus pectoralis</i>	R		
Lesser Black-backed Gull	<i>Larus fuscus</i>	P				Pennant-winged Nightjar		<i>Caprimulgus vexillarius</i>	M		
Royal Tern	<i>Thalasseus maximus</i>	R				APODIDAE					
Common Tern	<i>Sterna hirundo</i>	P				Sabine's Spinetail		<i>Rhaphidura sabini</i>	R	GC	
Little Tern	<i>Sternula albifrons</i>	M				Cassin's Spinetail		<i>Neafrapus cassini</i>	R	GC	c
COLUMBIDAE						African Palm Swift		<i>Cypsiurus parvus</i>	RB		
African Green Pigeon	<i>Treron calvus</i>	RB			u	Common Swift		<i>Apus apus</i>	PW		
Blue-headed Wood Dove	<i>Turtur brehmeri</i>	RB		GC	u	Little Swift		<i>Apus affinis</i>	RB		
Blue-spotted Wood Dove	<i>Turtur afer</i>	RB			u	COLIIDAE					
Tambourine Dove	<i>Turtur tympanistria</i>	RB				Speckled Mousebird		<i>Colius striatus</i>	RB		
Western Bronze-naped Pigeon	<i>Columba iriditorques</i>	R		GC		TROGONIDAE					
Afep Pigeon	<i>Columba unincincta</i>	R		GC	c	Narina's Trogon		<i>Apaloderma narina</i>	R		
Red-eyed Dove	<i>Streptopelia semitorquata</i>	RB				Bare-cheeked Trogon		<i>Apaloderma aequatoriale</i>	R	GC	
PSITTACIDAE						ALCEDINIDAE					
Grey Parrot	<i>Psittacus erithacus</i>	RB	VU	GC	c	Chocolate-backed Kingfisher		<i>Halcyon badia</i>	R	GC	u
*Red-fronted Parrot	<i>Poicephalus gularis</i>	RB			u	Woodland Kingfisher		<i>Halcyon senegalensis</i>	M		
Red-headed Lovebird	<i>Agapornis pullarius</i>	R				Blue-breasted Kingfisher		<i>Halcyon malimbica</i>	R		
MUSOPHAGIDAE						Striped Kingfisher		<i>Halcyon chelicuti</i>	R		
Great Blue Turaco	<i>Corythaeola cristata</i>	R				African Pygmy Kingfisher		<i>Ispidina picta</i>	MB		
Green Turaco	<i>Tauraco persa</i>	R		GC	u	White-bellied Kingfisher		<i>Corythornis leucogaster</i>	RB	GC	
Yellow-billed Turaco	<i>Tauraco macrorhynchus</i>	R		GC	u	Malachite Kingfisher		<i>Corythornis cristatus</i>	RB		
CUCULIDAE						Shining-blue Kingfisher		<i>Alcedo quadibrachys</i>	RB		c
Jacobin Cuckoo	<i>Clamator jacobinus</i>	V				Giant Kingfisher		<i>Megaceryle maxima</i>	RB		u
Thick-billed Cuckoo	<i>Pachycoccyx audeberti</i>	R				Pied Kingfisher		<i>Ceryle rudis</i>	R		
Red-chested Cuckoo	<i>Cuculus solitarius</i>	MB				MEROPIDAE					
Black Cuckoo	<i>Cuculus clamosus</i>	MB				Black-headed Bee-eater		<i>Merops breweri</i>	RB	GC	c
Olive Long-tailed Cuckoo	<i>Cercococcyx olivinus</i>	RB		GC		Black Bee-eater		<i>Merops gularis</i>	RB	GC	c
Yellow-throated Cuckoo	<i>Chrysococcyx flavigularis</i>	R		GC		Little Bee-eater		<i>Merops pusillus</i>	R		
Klaas's Cuckoo	<i>Chrysococcyx klaas</i>	RB				White-fronted Bee-eater		<i>Merops bullockoides</i>	RB		
African Emerald Cuckoo	<i>Chrysococcyx cupreus</i>	R				Blue-breasted Bee-eater		<i>Merops variegatus</i>	RB		u
Dideric Cuckoo	<i>Chrysococcyx caprius</i>	M				Rosy Bee-eater		<i>Merops malimbicus</i>	RB	GC	r
Yellowbill	<i>Ceuthmochares aereus</i>	R			c						

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CORACIIDAE						Black Saw-wing	<i>Psalidoprocne pristoptera</i>	RB			u
Blue-throated Roller	<i>Eurystomus gularis</i>	RB		GC	c	MOTACILLIDAE					
Broad-billed Roller	<i>Eurystomus glaucurus</i>	M				Mountain Wagtail	<i>Motacilla clara</i>	R			
UPUPIDAE						Long-legged Pipit	<i>Anthus pallidiventris</i>	RB		GC	
Hoopoe	<i>Upupa epops</i>	R				Yellow-throated Longclaw	<i>Macronyx croceus</i>	RB			
BUCEROTIDAE						CAMPEPHAGIDAE					
Black Dwarf Hornbill	<i>Horizocerus hartlaubi</i>	RB		GC	u	Petit's Cuckooshrike	<i>Campephaga petiti</i>	R		GC	
White-crested Hornbill	<i>Horizocerus albocristatus</i>	RB		GC		Blue Cuckooshrike	<i>Coracina azurea</i>	R		GC	c
Red-billed Dwarf Hornbill	<i>Tockus camurus</i>	R		GC		PYCNONOTIDAE					
African Pied Hornbill	<i>Tockus fasciatus</i>	RB		GC	c	Little Greenbul	<i>Eurillas virens</i>	RB			
Piping Hornbill	<i>Bycanistes fistulator</i>	R		GC		Little Grey Greenbul	<i>Eurillas gracilis</i>	RB		GC	u
White-thighed Hornbill	<i>Bycanistes albotibialis</i>	R		GC		Cameroon Sombre Greenbul	<i>Eurillas curvirostris</i>	R		GC	u
Black-casqued Hornbill	<i>Ceratogymna atrata</i>	RB		GC	c	Yellow-whiskered Greenbul	<i>Eurillas latirostris</i>	RB			
RAMPHASTIDAE						Slender-billed Greenbul	<i>Stelgidillas gracilirostris</i>	RB			
Bristle-nosed Barbet	<i>Gymnobucco peli</i>	RB		GC		Golden Greenbul	<i>Calyptocichla serinus</i>	R		GC	u
Naked-faced Barbet	<i>Gymnobucco calvus</i>	RB		GC		Honeyguide Greenbul	<i>Baepogon indicator</i>	RB		GC	
*Speckled Tinkerbird	<i>Pogoniulus scolopaceus</i>	RB		GC	u	Spotted Greenbul	<i>Ixonotus guttatus</i>	R		GC	c
Red-rumped Tinkerbird	<i>Pogoniulus atroflavus</i>	R		GC		Simple Greenbul	<i>Chlorocichla simplex</i>	RB		GC	
Yellow-throated Tinkerbird	<i>Pogoniulus subsulphureus</i>	RB		GC		Yellow-throated Leaflove	<i>Chlorocichla flavicollis</i>	RB			
Yellow-rumped Tinkerbird	<i>Pogoniulus bilineatus</i>	RB				Swamp Palm Bulbul	<i>Thescelocichla leucopleura</i>	RB		GC	u
Yellow-spotted Barbet	<i>Buccanodon duchaillui</i>	R		GC		Leaflove	<i>Pyrrhurus scandens</i>	RB		GC	
*Hairy-breasted Barbet	<i>Tricholaema hirsuta</i>	R		GC	u	Icterine Greenbul	<i>Phyllastrephus icterinus</i>	RB		GC	
Black-backed Barbet	<i>Pogonornis minor</i>	R				Red-tailed Bristlebill	<i>Bleda syndactylus</i>	RB		GC	u
Yellow-billed Barbet	<i>Trachylaemus purpuratus</i>	RB		GC		Lesser Bristlebill	<i>Bleda notatus</i>	RB		GC	
INDICATORIDAE						Eastern Bearded Greenbul	<i>Criniger chloronotus</i>	RB		GC	
Lyre-tailed Honeyguide	<i>Melichneutes robustus</i>	R		GC		White-bearded Greenbul	<i>Criniger ndussumensis</i>	RB		GC	
PICIDAE						Red-tailed Greenbul	<i>Criniger calurus</i>	RB		GC	u
Green-backed Woodpecker	<i>Campethera cailliautii</i>	R			u	Common Bulbul	<i>Pycnonotus barbatus</i>	RB			
Brown-eared Woodpecker	<i>Campethera caroli</i>	RB		GC		Black-collared Bulbul	<i>Neolestes torquatus</i>	RB			
Cardinal Woodpecker	<i>Dendropicos fuscescens</i>	R				NICATORIDAE					
Yellow-crested Woodpecker	<i>Chloropicus xantholophus</i>	RB		GC		Western Nicator	<i>Nicator chloris</i>	RB		GC	u
EURYLAIMIDAE						Yellow-throated Nicator	<i>Nicator vireo</i>	RB		GC	
Rufous-sided Broadbill	<i>Smithornis rufolateralis</i>	R		GC		TURDIDAE					
ALAUDIDAE						Red-tailed Ant Thrush	<i>Neocossyphus rufus</i>	RB			
Flappet Lark	<i>Mirafra rufocinnamomea</i>	RB				White-tailed Ant Thrush	<i>Neocossyphus poensis</i>	R		GC	
HIRUNDINIDAE						Rufous Flycatcher Thrush	<i>Stizorhina fraseri</i>	RB		GC	
African River Martin	<i>Pseudochelidon eurystomina</i>	MB	DD	GC		African Thrush	<i>Turdus pelios</i>	RB			
Banded Martin	<i>Neophedina cincta</i>	MB				CISTICOLIDAE					
Grey-rumped Swallow	<i>Pseudhirundo griseopyga</i>	R				Red-faced Cisticola	<i>Cisticola erythrops</i>	R			
Lesser Striped Swallow	<i>Cecropis abyssinica</i>	RB				Winding Cisticola	<i>Cisticola galactotes</i>	RB			
Red-breasted Swallow	<i>Cecropis semirufa</i>	MB				Croaking Cisticola	<i>Cisticola natalensis</i>	RB			
Mosque Swallow	<i>Cecropis senegalensis</i>	R				Short-winged Cisticola	<i>Cisticola brachypterus</i>	RB			
White-throated Blue Swallow	<i>Hirundo nigrita</i>	RB		GC	c	Zitting Cisticola	<i>Cisticola juncidis</i>	RB			
Barn Swallow	<i>Hirundo rustica</i>	P				Tawny-flanked Prinia	<i>Prinia subflava</i>	RB			
Square-tailed Saw-wing	<i>Psalidoprocne nitens</i>	RB		GC	u	*Banded Prinia	<i>Prinia bairdii</i>	R			c

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White-chinned Prinia	<i>Schistolais leucopogon</i>	RB				Western Black-headed Batis	<i>Batis erlangeri</i>	RB			
Buff-throated Apalis	<i>Apalis rufogularis</i>	RB		GC		NECTARINIIDAE					
Grey-backed Camaroptera	<i>Camaroptera brachyura</i>	RB				Fraser's Sunbird	<i>Deleornis fraseri</i>	RB		GC	
Olive-green Camaroptera	<i>Camaroptera chloronota</i>	RB		GC		Mouse-brown Sunbird	<i>Anthreptes gabonicus</i>	R		GC	
Yellow-browed Camaroptera	<i>Camaroptera supercilii</i>	R		GC		Violet-tailed Sunbird	<i>Anthreptes aurantius</i>	RB		GC	
MACROSPHENIDAE						Green Sunbird	<i>Anthreptes rectirostris</i>	RB		GC	
Green Crombec	<i>Sylvietta virens</i>	RB		GC	u	Collared Sunbird	<i>Hedydipna collaris</i>	RB			u
Grey Longbill	<i>Macrosphenus concolor</i>	RB		GC		Reichenbach's Sunbird	<i>Anabathmis reichenbachii</i>	RB		GC	
PHYLLOSCOPIDAE						Green-headed Sunbird	<i>Cyanomitra verticalis</i>	RB			u
Willow Warbler	<i>Phylloscopus trochilus</i>	PW				Blue-throated Brown Sunbird	<i>Cyanomitra cyanoaema</i>	RB		GC	u
Wood Warbler	<i>Phylloscopus sibilatrix</i>	PW				Olive Sunbird	<i>Cyanomitra olivacea</i>	RB			u
SCOTOCERCIDAE						Green-throated Sunbird	<i>Chalcomitra rubescens</i>	R		GC	
Chestnut-capped Flycatcher	<i>Erythrocerus mcalli</i>	RB		GC		Carmelite Sunbird	<i>Chalcomitra fuliginosa</i>	RB		GC	
Green Hylia	<i>Hylia prasina</i>	RB		GC	u	Olive-bellied Sunbird	<i>Cinnyris chloropygius</i>	RB			
SYLVIIDAE						Tiny Sunbird	<i>Cinnyris minullus</i>	R		GC	
Garden Warbler	<i>Sylvia borin</i>	PW				Copper Sunbird	<i>Cinnyris cupreus</i>	RB			
MUSCICAPIDAE						Superb Sunbird	<i>Cinnyris superbus</i>	RB		GC	
Fire-crested Alethe	<i>Alethe castanea</i>	RB		GC		LANIIDAE					
White-browed Scrub Robin	<i>Cercotrichas leucophrys</i>	RB				Common Fiscal	<i>Lanius collaris</i>	RB			
Snowy-crowned Robin Chat	<i>Cossypha niveicapilla</i>	RB				Lesser Grey Shrike	<i>Lanius minor</i>	P			
Forest Robin	<i>Stiphornis erythrothorax</i>	RB		GC		MALACONOTIDAE					
African Stonechat	<i>Saxicola torquatus</i>	R				Sabine's Puffback	<i>Dryoscopus sabini</i>	R		GC	c
Sooty Chat	<i>Myrmecocichla nigra</i>	RB			u	Black-shouldered Puffback	<i>Dryoscopus senegalensis</i>	RB		GC	u
Pale Flycatcher	<i>Bradornis pallidus</i>	RB				Black-crowned Tchagra	<i>Tchagra senegalus</i>	R			
Fraser's Forest Flycatcher	<i>Fraseria ocreata</i>	RB		GC	u	Sooty Boubou	<i>Laniarius leucorhynchus</i>	R		GC	
White-browed Forest Flycatcher	<i>Fraseria cinerascens</i>	RB		GC	u	Swamp Boubou	<i>Laniarius bicolor</i>	R			
Spotted Flycatcher	<i>Muscicapa striata</i>	P				VANGIDAE					
Cassin's Flycatcher	<i>Muscicapa cassini</i>	RB		GC	c	Rufous-bellied Helmetshrike	<i>Prionops rufiventris</i>	RB		GC	
Olivaceous Flycatcher	<i>Muscicapa olivascens</i>	RB		GC	r	ORIOOLIDAE					
Sooty Flycatcher	<i>Muscicapa infuscata</i>	RB		GC	u	Western Black-headed Oriole	<i>Oriolus brachyrhynchus</i>	RB		GC	
Yellow-footed Flycatcher	<i>Muscicapa sethsmithi</i>	RB		GC		Black-winged Oriole	<i>Oriolus nigripennis</i>	R		GC	
STENOSTIRIDAE						DICRURIDAE					
African Blue Flycatcher	<i>Elminia longicauda</i>	R				Velvet-mantled Drongo	<i>Dicrurus modestus</i>	RB		GC	c
MONARCHIDAE						Shining Drongo	<i>Dicrurus atripennis</i>	RB		GC	
*Rufous-vented Paradise Flycatcher	<i>Terpsiphone rufocinerea</i>	RB		GC	c	CORVIDAE					
Red-bellied Paradise-Flycatcher	<i>Terpsiphone rufiventer</i>	RB		GC	u	Pied Crow	<i>Corvus albus</i>	RB			
PELLORNEIDAE						STURNIDAE					
Blackcap Illadopsis	<i>Illadopsis cleaveri</i>	RB		GC		Chestnut-winged Starling	<i>Onychognathus fulgidus</i>	RB		GC	
Pale-breasted Illadopsis	<i>Illadopsis rufipennis</i>	RB				Purple-headed Glossy Starling	<i>Hylopsar purpureiceps</i>	RB		GC	
Brown Illadopsis	<i>Illadopsis fulvescens</i>	RB		GC		Splendid Glossy Starling	<i>Lamprotornis splendidus</i>	RB			
Arrow-marked Babbler	<i>Turdoides jardineii</i>	R			u	Violet-backed Starling	<i>Cinnyricinclus leucogaster</i>	M			
PLATYSTEIRIDAE						BUPHAGIDAE					
Chestnut Wattle-eye	<i>Dyaphorophya castanea</i>	RB		GC		Yellow-billed Oxpecker	<i>Buphagus africanus</i>	R			
Common Wattle-eye	<i>Platysteira cyanea</i>	RB				PASSERIDAE					
Black-and-white Flycatcher	<i>Bias musicus</i>	RB				Northern Grey-headed Sparrow	<i>Passer griseus</i>	RB			

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PLOCEIDAE						Grey Waxbill		<i>Estrilda perreini</i>	R		
Cassin's Malimbe	<i>Malimbus cassini</i>	RB	GC	c	Orange-cheeked Waxbill		<i>Estrilda melpoda</i>	RB			
Blue-billed Malimbe	<i>Malimbus nitens</i>	RB	GC	r	Common Waxbill		<i>Estrilda astrild</i>	RB			u
Red-headed Malimbe	<i>Malimbus rubricollis</i>	RB	GC	u	Western Bluebill		<i>Spermophaga haematina</i>	RB		GC	c
Crested Malimbe	<i>Malimbus malimbicus</i>	RB	GC		Black-bellied Seedcracker		<i>Pyrenestes ostrinus</i>	R			
Black-necked Weaver	<i>Ploceus nigricollis</i>	RB			Blue-bellied Firefinch		<i>Lagonosticta rubricata</i>	RB			
*Orange Weaver	<i>Ploceus aurantius</i>	RB	GC	r	Black-chinned Quailfinch		<i>Ortygospiza gabonensis</i>	R			
Vieillot's Black Weaver	<i>Ploceus nigerrimus</i>	RB	GC	u	Zebra Waxbill		<i>Amandava subflava</i>	R			
Village Weaver	<i>Ploceus cucullatus</i>	RB			Bronze Mannikin		<i>Spermestes cucullata</i>	RB			
Compact Weaver	<i>Ploceus superciliosus</i>	RB			Black-and-white Mannikin		<i>Spermestes bicolor</i>	RB			u
Red-headed Quelea	<i>Quelea erythrops</i>	M			VIDUIDAE						
Yellow-mantled Widowbird	<i>Euplectes macroura</i>	RB			Pin-tailed Whydah		<i>Vidua macroura</i>	R			
ESTRILDIDAE						FRINGILLIDAE					
White-breasted Negrofinch	<i>Nigrita fusconotus</i>	R	GC		Black-faced Canary		<i>Crithagra capistrata</i>	R			
Chestnut-breasted Negrofinch	<i>Nigrita bicolor</i>	RB	GC	u	EMBERIZIDAE						
Grey-headed Negrofinch	<i>Nigrita canicapillus</i>	RB		c	Cinnamon-breasted Bunting		<i>Emberiza tahapisi</i>	R			
*Pale-fronted Negrofinch	<i>Nigrita luteifrons</i>	RB	GC	u							